

Finger Joint Cutter Ø160 Z4

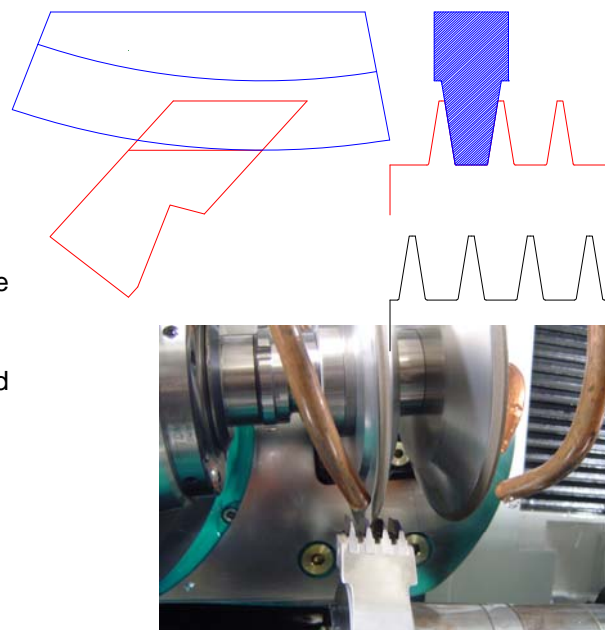
A16-280

Fullformwheel Grinding:

Depending on material overmeasure, a plunge roughing operation is executed. In the below cycletime 2 plunges per finger are considered. With 4 plunges the cycletime would increase by 8 minutes.

The formgrinding with a DXF Formwheel is done in one plunge with minimal feed for the last 1.6 mm.

The form wheel for finishing has a dressable CBN coating. Periodic formdressing after each tool is automatically executed on the machine.



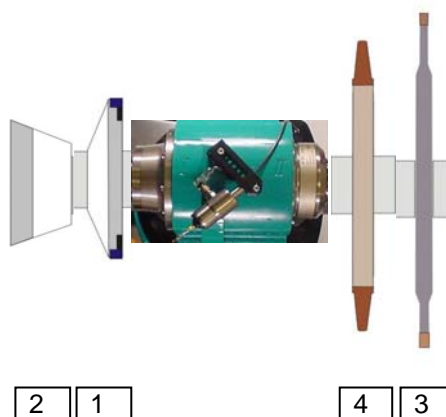
1. Cycletime for Production

Workpiece:	Ø 160 mm, Z 4, Length 32 mm					
Material	HSS					
Operations	Probe	Face	O.D.	Pregrinding	finishing	Dress
Feed [mm/Min]	2000	80	300	80	3	100
Power [kW]		3	2	5	16	1
Cutting feed [m/s]		32	32	32	45	
Used wheels		1	2	3	4	4
Grinding time [s]	16	318	107	487	856	160
Total cycle time	32 Min 25					

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	12A2 Ø125 B126
2	11V9 Ø100 B126
3	14A1 Ø250-300 B126
4	DXF Ø250-300 B126



3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEM DMR 26kW Coolant: Synthetic Oil, pressure 16 bar
 Control: Fanuc 160i Software: Quinto 5
 Accessories: Dressing

Responsible engineer: OP. 12.8.09

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